I Claim:

1. A hydraulic accumulator comprising:

a rigid tank having an open interior;

first and second fixtures on said tank for fluid communication with gas and liquid sources exterior to said tank;

a flexible, non-elastic bladder, mounted within said tank and having an interior in communication with one of said fixtures, said bladder separating the open interior of the tank into a gas space and a working fluid space respectively communicating through said fixtures; and

a shut-off valve mounted in a second of said fixtures and closing said second fixture responsive to the volume of the working fluid within said accumulator falling to a determined low value.

2. A hydraulic accumulator according to claim 1 wherein said bladder is in the form of a metal bellows.

3. A hydraulic accumulator according to claim 2 wherein said gas space is defined between said tank and said bladder and contains a mass of compressed gas and wherein the working fluid is a liquid which enters and exits the interior of said bladder through said second fixture.

4. A hydraulic accumulator according to claim 2 wherein said interior of said bladder contains a mass of compressed gas, and wherein the working fluid is a liquid which enters and exits said

working fluid space which is defined between said tank and said bladder.

5. A hydraulic accumulator according to claim 1 wherein said interior of said bladder contains a mass of compressed gas, and wherein the working fluid is a liquid which enters and exits said working fluid space which is defined between said tank and said bladder.

6. A hydraulic accumulator according to claim 1 wherein said bladder is formed of a metal foil.

7. A hydraulic accumulator according to claim 6 wherein said metal foil is 0.003 and 0.0007 inches thick.

8. A hydraulic accumulator according to claim 6 wherein said metal foil has at least one surface coated with a flexible polymer.

9. A hydraulic accumulator according to claim 1 wherein said bladder is in the form of a bellows.

10. A hydraulic accumulator according to claim 5 further comprising a vent formed in said tank and in communication with said liquid space for venting any accumulated gas from said liquid space.

11. A hydraulic accumulator according to claim 1 further comprising a coil spring attached to said second fixture and surrounding said shut-off valve.

12. A hydraulic accumulator according to claim 1 further comprising a spring internal to the bladder and attached to opposing ends of the bladder.

13. A hydraulic accumulator according to claim 9 wherein said bellows is a non-permeable polymer.

14. A hydraulic accumulator comprising:

a rigid tank having an open interior;

first and second fixtures on said tank for fluid communication with gas and liquid sources exterior to said tank;

a bladder, mounted within said tank and having an interior in communication with one of said fixtures, said bladder separating the open interior of the tank into a gas space within the bladder and a liquid space surrounding the bladder, respectively communicating through said fixtures; and

a vent formed in said tank and in communication with said liquid space.